Virginia Department of Forestry
BMP Effort, Implementation, and Effectiveness Field Audit
•
November 2000

Introduction

The twelfth semi-annual forestry Best Management Practice (BMP) field audit was conducted by the Virginia Department of Forestry (DOF) on November 14, 15, and 16, 2000. The audit had three purposes: (1) to identify current levels of *effort* in attempting to use BMPs, whether or not BMPs meet technical specifications, (2) to identify current levels of *BMP implementation* as compared to the technical BMP implementation standards documented in the DOF BMP handbook titled *Forestry Best Management Practices For Water Quality In Virginia*, (3) to identify *effectiveness* levels for BMPs that have been implemented to DOF standards.

Methods

A total of 30 timber harvests were randomly selected from the timber harvests listed in the DOF information system as having been inspected by DOF or industry cooperators between June 16, 2000 and November 1, 2000. Timber harvests were selected from inspections made in each of DOF's six regions.

After site selection, team members divided into eight groups. Timber harvests were divided among the groups. Each group traveled to their assigned timber harvests and inspected them. Local DOF field personnel helped each group locate their assigned sites. Information was collected at each site using a standard *BMP Effort, Implementation, and Effectiveness Audit Sheet*.

Findings

Efforts to implement BMPs were evident at 97% of inspected timber harvests, no change from the 97% recorded in June 2000, *(fig.1)*. Quality of effort, rated on a scale of 1(poor) to 5(excellent), averaged 3.1; up from an average of 2.7 in June 2000. Implementation of all necessary BMPs to DOF standards occurred at 20% of inspected sites; up from a 17% BMP implementation rate recorded in June 2000, *(fig. 2)*.

Fig. 1: Has An Effort Been Made To Apply BMPs, Regardless Of Meeting Technical Specifications?

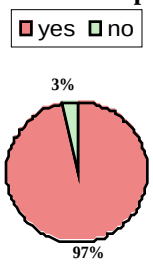
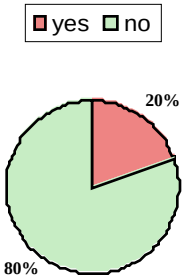


Fig. 2: Were All BMPs Applied To Technical Specifications As Expressed in The BMP Manual?



Active water quality problems exist at 10% of inspected sites; down from 21% in June 2000, *(fig. 3)*. Potential water quality problems were noted at 27% of the inspected sites; down from 41% in June 2000, *(fig. 4)*.

Of the 24 randomly inspected harvests that did not have all necessary BMPs in place, 21 lacked sufficient water control structures or had water control structures installed that did not meet DOF standards. In these instances, water bars, rolling dips, and broad based dips were absent, improperly designed, or improperly spaced. Culverts were too small, improperly installed, or not installed at all.

Fig. 3: Does A Water Quality Problem Exist Now Because BMP Technical Specifications Were Not Met?

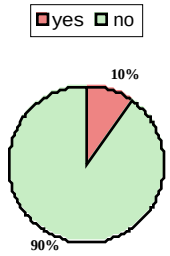
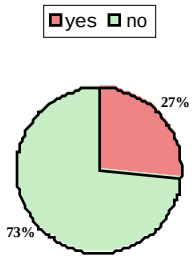


Fig. 4: Does The Potential Exist For A Water Quality Problem To Develop Because BMP Technical Specifications Were Not Met?

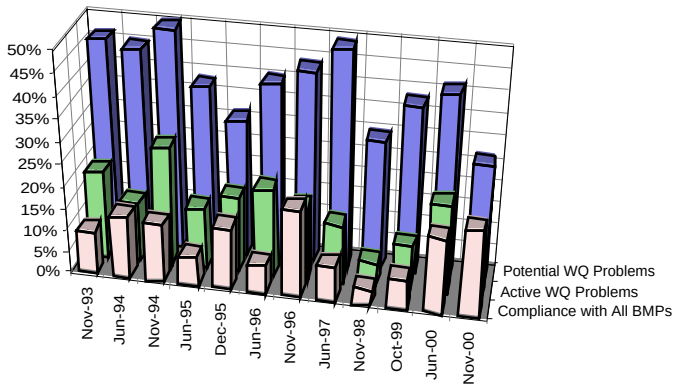


Vegetative cover was inadequate at 20 of the randomly inspected sites. Seeding had either not taken place, or was done in a manner that did not generate sufficient vegetative cover, defined as at least 70% coverage of disturbed mineral soil.

Stream crossings were inadequate at 8 of the randomly inspected harvests. These crossings did not have adequate bridges, culverts or sufficient natural rock to be considered acceptable rock fords.

Rutting in excess of BMP standards had occurred at 6 randomly inspected harvests.

Fig. 5: Three Trends



Skid trails or haul roads were too steep at 8 of the randomly inspected timber harvests.

Stream side management zones (SMZs) were inadequate at 9 of the randomly inspected timber harvests. Either no SMZ had been retained along a perennial stream, or trees within sections of the SMZ had been removed so that a continuous corridor of trees containing not less than 50 square feet of basal area, uniformly distributed for a minimum of 50 feet on each side of a stream, was not present.

An oil spill or excessive trash on site occurred at 2 of the randomly inspected timber harvests.

More information about the November 2000 BMP Audit may be obtained from members of the audit team.

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